

K003391

Line Extension: Osteonics® Alumina C-Taper Heads

Special 510(k) Premarket Notification

NOV 28 2000

**Summary of Safety and Effectiveness**  
**Line Extension - Osteonics® Alumina C-Taper Heads**

**Submission Information**

Name and Address of the Sponsor  
Of the 510(k) Submission

Howmedica Osteonics Corp  
59 Route 17  
Allendale, NJ 07401-1677

Contact Person:

Karen Ariemma  
Regulatory Affairs Specialist

Date of Summary Preparation:

October 16, 2000

**Device Identification:**

Proprietary Name:

Osteonics® Alumina C-Taper Head

Common Name:

Femoral Bearing Head

Classification Name and Reference

Hip Joint, Metal/Ceramic/Polymer, Semi-  
Constrained, Cemented or Nonporous  
Uncemented Prosthesis, 21 CFR §888.3353

**Predicate Device Identification**

The Osteonics® Alumina C-Taper Head with a minus size neck offset is substantially equivalent to the Osteonics C-Taper Heads which were determined substantially equivalent via 510(k)s K971409 and K991952.

**Device Description**

Osteonics® Alumina C-Taper Heads are ceramic femoral bearing heads that have been designed for assembly, through a taper lock mechanism, to titanium alloy femoral stems with a Howmedica Osteonics' C-Taper trunnion design. The line extension to the Osteonics® Alumina C-Taper Heads adds a -2.5 mm neck offset to the 28mm and 32mm diameter heads and a -5 mm neck offset to the 36mm diameter head. The modified heads are identical to the unmodified heads in every aspect with the exception of the addition of the minus size neck offsets. The subject device is identical in material to the predicate device.

**Intended Use**

The Osteonics® Alumina C-Taper Head with the minus neck offset may be used with any appropriately selected legally marketed Howmedica Osteonics' titanium alloy femoral stem that

incorporates a C-Taper trunnion. The Osteonics® Alumina C-Taper Head with a minus size neck offset is intended for use with any appropriately selected legally marketed polyethylene insert and associated metal shell or an all polyethylene acetabular cup.

*Indications for Use*

**For Use as a Total Hip Replacement:**

- Painful disabling joint disease of the hip resulting from: degenerative arthritis, rheumatoid arthritis, post-traumatic arthritis or late stage vascular necrosis.
- Revision of previous cup arthroplasty or other procedures
- Clinical management problems where arthrodesis or alternative reconstructive techniques are less likely to achieve satisfactory results.

**For Use as a Bipolar Hip Replacement**

- Femoral head/neck fractures or non-unions.
- Aseptic necrosis of the femoral head.
- Osteo-, rheumatoid, and post traumatic arthritis of the hip with minimal acetabular involvement or distortion.

*Other Considerations:*

- Pathological considerations or age considerations which indicate a more conservative acetabular procedure and an avoidance of the use of bone cement in the acetabulum.
- Salvage of failed total hip arthroplasty

**Statement of Technological Comparison**

The subject Osteonics® Alumina C-Taper Heads with a minus size neck offset share the same material, intended use, and basic design concepts as the predicate Osteonics® Alumina C-Taper Head.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

NOV 28 2000

Ms. Karen Ariemma  
Regulatory Affairs Specialist  
Howmedica Osteonics Corporation  
59 Route 17  
Allendale, New Jersey 07401-1677

Re: K003391  
Trade Name: Osteonics Alumina C-Taper Heads  
Regulatory Class: II  
Product Code: LZO  
Dated: October 30, 2000  
Received: October 31, 2000

Dear Ms. Ariemma:

We have reviewed your Section 510(k) ~~notification of intent to market~~ the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed ~~in interstate commerce~~ prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements ~~for annual registration, listing of devices,~~ good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

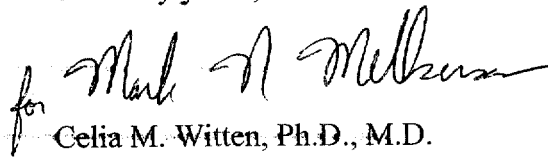
If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic (QS) inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

Page 2 - Ms. Karen Ariemma

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or at (301) 443-6597, or at its Internet address "<http://www.fda.gov/cdrh/dsmamain.html>".

Sincerely yours,

for Mark N. Milburn

Celia M. Witten, Ph.D., M.D.

Director

Division of General, Restorative and  
Neurological Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

510(k) Number (if known): K 003391

Device Name: Osteonics® Alumina C-Taper Heads with a minus size neck offset

Indications For Use:

The indications for use of the subject device, in keeping with those of other legally marketed Howmedica Osteonics' ceramic femoral bearing heads is as follows:

For Use as a Total Hip Replacement:

- Painful disabling joint disease of the hip resulting from: degenerative arthritis, rheumatoid arthritis, post-traumatic arthritis or late stage vascular necrosis.
- Revision of previous cup arthroplasty or other procedures
- Clinical management problems where arthrodesis or alternative reconstructive techniques are less likely to achieve satisfactory results.

For Use as a Bipolar Hip Replacement

- Femoral head/neck fractures or non-unions.
- Aseptic necrosis of the femoral head.
- Osteo-, rheumatoid, and post traumatic arthritis of the hip with minimal acetabular involvement or distortion.

*Other Considerations:*

- Pathological considerations or age considerations which indicate a more conservative acetabular procedure and an avoidance of the use of bone cement in the acetabulum.
- Salvage of failed total hip arthroplasty

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use \_\_\_\_\_

OR

Over-The-Counter Use \_\_\_\_\_

(Per 21 CFR 801.109)

(Optional Format 1-2-96)

for Mark H. Melker  
(Division Sign-Off)  
Division of General Restorative Devices

510(k) Number K003391